

ABSTRACT OF THE DISCLOSURE

A water spray head for spraying water spray mist in a fire prevention system, includes a water supply duct(1); a spray head upper body (2); a fluid chamber (3); and a “w” shaped bottom (4), on which at least two rings of nozzles (6, 8) are installed. The water spray head may be used to produce a spray mist of a liquid fire extinguishing agent, such as water, for fire suppression. The water spray head has a body with a “w” shaped bottom, a chamber and two rings of liquid mist nozzles on the slant walls of the “w” shaped bottom. The liquid mist nozzles installed on the outer ring point outward. On the other hand, the liquid mist nozzles installed on the inner ring point inward. The liquid mist sprays from the nozzles at the inner ring may collide with each other directly or tangentially to form finer liquid droplets and a more uniformly distributed “solid cone” water spray. Such a fine “solid cone” water mist spray improves the efficiency of fire suppression significantly and reduces the number of spray heads to be activated in case of a fire. The water mist formation of the individual nozzle is also designed to be based on the collision of liquid streams from multiple small flow channels in a large flow channel. As a result, the liquid streams may collide with each other and the wall of the large channel to form the liquid mist with much fine droplets.